REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

I. STATUS OF THE CLAIMS

Claim 1, 4, 7, and 11 are amended herein.

In view of the above, it is respectfully submitted that claims 1-15 are currently pending and under consideration.

II. REJECTION OF CLAIMS 1-12 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

In items 10 and 11 on page 3 of the Office Action, claims 1, 4, 7, and 11 are rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 4, 7, and 11 are amended herein to overcome the rejections.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. REJECTION OF CLAIMS 1-6 AND 11-12 UNDER 35 U.S.C. § 102(B) AS BEING CLEARLY ANTICIPATED BY SANNOMIYA AKIO JP 62-077889

Claim 1 of the present invention relates to "[a] method of controlling a motor in a motor driving system, the method comprising: calculating N control algorithms corresponding to N motor driving conditions, wherein N>0; driving the motor under N motor driving environments by using one of the calculated algorithms; calculating performance indexes by using predetermined control factors which are detected when driving the motor using the algorithm under the N motor driving environments; and storing the calculated N control algorithms and the performance indexes corresponding to each of the N motor driving conditions."

In item 5 on page 2 of the Office Action, the Examiner asserts, "[r]ejection of claims 1, 4, and 11…is maintained and rewritten to show that the claims as broadly claimed read on the prior art." However, the claims should be interpreted in light of their plain meaning as understood by one of ordinary skill in the art. In re Zletz, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), citing, In re Prater. The broadest reasonable interpretation must also conform to the broadest reasonable interpretation afforded by one of ordinary skill in the art *when read in light of the specification*. In re Prater, 162 USPQ 541, 550-51, In re Morris, 44 USPQ2d at 1027, MPEP 2111.01 (7th Ed., rev. 1)(Feb. 2000).

As mentioned in the previous response, Akio teaches a motor controlling system which is fundamentally different from the present claimed invention. The Examiner points to various features in the Akio reference, for example (see item 12 on page 4 of the Office Action), that fail to teach or suggest any of the claimed features as recited in claim 1 of the present invention.

The Examiner's attention is directed to page 4 in the Akio reference. Here, Akio teaches, "a control part (13) executes the test mode, and performs the operation of setting the motor constant data needed in the conventional operation mode. On the basis of the initial value data pre-stored in initial value memory (16), control part (13) makes DC motor (10) perform the test operation" (see lines 2-5). Further, Akio teaches, "[c]ontrol part (13) computes constant velocity motor constant data from ΔPTiw from deviation value distribution storage part (15) and initial value data PTiw from initial value memory (16). This constant velocity motor constant data "ΔPTiw + PTiw" is stored in motor constant memory (17) in the state shown in Figure 4(b). Then, control part (13) switches the mode form the test mode to the operation mode, and drives DC motor (10) to rotate... As a result, even when variation takes place in the ambient environment, DC motor (10) still can rotate at a stable constant velocity because it is driven based on the constant velocity constant data [ΔPTiw + Ptiw] that contains the variation portion" (see page 4, line 31 through page 5, line 12).

According to the above-described teachings of Akio, a person of ordinary skill in the art could not *reasonably* find the Akio teaches the specifics of the present claimed invention. Nowhere in Akio is it described that a method of controlling a motor in a motor driving system comprises "calculating N control algorithms corresponding to N motor driving conditions, wherein N>0," "driving the motor under N motor driving environments by using one of the calculated algorithms," "calculating performance indexes by using predetermined control factors which are detected when driving the motor using the algorithm under the N motor driving environments," and "storing the calculated N control algorithms and the performance indexes corresponding to each of the N motor driving conditions" (see claim 1).

The Examiner is again reminded, "to anticipate a claim, the references must teach every element of the claim." MPEP § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Akio fails to teach any of the features recited in claim 1.

Claim 4 also patentably distinguishes over Akio. For example, claim 4 relates to a method comprising "driving the motor by applying the base controller; converting predetermined

information detected by driving the motor into system performance information; comparing the system performance information with N system performance information of the respective N controllers; and driving the motor by selecting an optimum controller under the driving condition to correspond to the system performance information that corresponds to the detected predetermined information." Akio is silent regarding the features recited in claim 4.

Claim 11 recites "[a] system for driving a motor, the system comprising: a controller calculation unit to obtain functions of control parameters considering N driving environments and to calculate control algorithms according to the functions; and a memory to store the functions of the control parameters and the corresponding control algorithms." Akio does not teach the features recited in claim 11.

Dependent claims 2 and 3 (depending, either directly or indirectly, from claim 1), claims 5 and 6 (depending, either directly or indirectly, from claim 4), and claim 12 (depending from claim 11) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1, 4, and 11. For example, in contrast to Akio, dependent claim 2 provides, " wherein the calculating of the performance indexes comprises: assigning predetermined weights to each of the predetermined control factors; and calculating the performance indexes by combining the predetermined control factors to which the weights are assigned." The Examiner asserts, "[Akio] assigns predetermined weights...to each of the predetermined control factors (velocity variation delta Vj). In addition, the disclosure shows that the performance index is calculated by combining the predetermined control factors to which the weights are assigned using formula 1 on page 4." However, Akio does not teach or suggest any of the features recited in claim 2 of the present invention. The Examiner merely relies on broad conclusory statements, subjective belief, and unknown authority in suggesting that Akio teaches the features in claim 2.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. REJECTION OF CLAIMS 13-15 UNDER 35 U.S.C. §102(E) AS BEING ANTICIPATED BY TAZAWA ET AL. (US 6,844,693)

Claim 13 of the present invention relates to "[a] system for driving a motor, comprising: a plurality of driving environments; and a plurality of controllers pre-designed based on the driving environments, wherein at least one controller of the plurality of controllers is selected to control a specific driving environment of the driving environments using control factors."

Tazawa teaches a position control apparatus for a motor. The Examiner states that Tazawa teaches a plurality of controllers pre-designed based on a driving environment. The

Examiner alleges that the "plurality of control parameter sets" as described in column 12, line 32 of Tazawa is the same as a "plurality of controllers" as recited in claim 13.

In contrast to the Examiner's statements, a plurality of control parameter sets is clearly not the same as a plurality of controllers. In fact, there is nothing in the Tazawa reference that would suggest to a person of ordinary skill in the art that a plurality of control parameter sets is the same as a plurality of controllers. Tazawa teaches that a first step processing section 85 has a plurality of control parameter sets to which set numbers are assigned (see column 12, lines 31-33). Nothing in Tazawa teaches or suggests the use of: (1) a plurality of controllers or (2) a plurality of controllers pre-designed based on driving environments.

Tazawa teaches the use of a *single* control apparatus, which includes a plurality of sets of control parameters. By contrast, the present invention teaches a system that includes a *plurality* of controllers.

The Examiner is again reminded, "to anticipate a claim, the references must teach every element of the claim." MPEP § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claims 14 and 15 depend from claim 13 and patentably distinguish over the cited prior art for at least the same reasons as claim 13.

In view of the above, it is respectfully submitted that the rejection is overcome.

V. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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